



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0056; Directorate Identifier 2012-NE-48-AD]

RIN 2120-AA64

Airworthiness Directives; Hamilton Sundstrand Corporation Propellers

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for Hamilton Sundstrand Corporation 14SF-7, 14SF-15, and 14SF-23 series propellers using certain Hamilton Sundstrand Corporation auxiliary pumps and motors (auxiliary feathering pumps). This proposed AD was prompted by a report of a propeller not moving into the feathering position after an engine in-flight shutdown. This proposed AD would require removing certain serial numbers (S/Ns) of auxiliary feathering pumps from service. We are proposing this AD to prevent propellers from failing to move into the feathering position after an engine in-flight shutdown. Propellers failing to feather can cause high drag on the propeller, asymmetric thrust, and difficulty of, or impossibility in, controlling the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Hamilton Sundstrand Propeller Technical Team, One Hamilton Road, Mail Stop 1-3-AB43, Windsor Locks, CT 06096-1010; fax: 860-654-5107. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Michael Schwetz, Aerospace Engineer, Boston Aircraft Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7761; fax: 781-238-7170; email: michael.schwetz@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section.

Include “Docket No. FAA-2013-0056; Directorate Identifier 2012-NE-48-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We received a report of an engine in-flight shutdown on a Bombardier DHC-8-400 airplane, where the propeller did not move into the feathering position. Bombardier was in contact with Hamilton Sundstrand Corporation inquiring about the auxiliary feathering pump used on the Hamilton Sundstrand Corporation propellers. Hamilton Sundstrand Corporation found the auxiliary feathering pump used on their 14SF series propeller is a similar design as that used on the DHC-8-400 airplane. The Hamilton Sundstrand investigation revealed some of their auxiliary feathering pump motors had internal corrosion that may cause the stator magnets in the pump motor to fail and rotate into the path of the armature, preventing the pump from feathering the propeller. This condition, if not corrected, could result in propellers failing to feather, causing high drag on the propeller, asymmetric thrust, and difficulty of, or impossibility in, controlling the airplane.

Relevant Service Information

We reviewed Hamilton Sundstrand Corporation Alert Service Bulletin (ASB) No. 14SF-61-A165, dated September 25, 2012. The ASB lists by S/N the affected Hamilton Sundstrand Corporation auxiliary feathering pumps, part number (P/N) 782655-3

(Aerocontrol P/N 4122-006009) and provides instructions for getting the pumps modified.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require removing the affected auxiliary feathering pumps from service.

Costs of Compliance

We estimate that this proposed AD affects 284 Hamilton Sundstrand Corporation 14SF-7, 14SF-15, and 14SF-23 series propellers using affected auxiliary feathering pumps installed on airplanes of U.S. registry. We also estimate that it would take about 1.5 hours per propeller to comply with this proposed AD. The average labor rate is \$85 per hour. Required parts cost is \$6,000 per propeller. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$1,740,210.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction.
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Hamilton Sundstrand Corporation: Docket No. FAA-2013-0056; Directorate Identifier 2012-NE-48-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Hamilton Sundstrand Corporation 14SF-7, 14SF-15, and 14SF-23 series propellers, using Hamilton Sundstrand Corporation auxiliary pumps and motors (auxiliary feathering pumps), part number (P/N) 782655-3 (Aerocontrollex P/N 4122-006009), with the following serial numbers (S/Ns):

(1) S/Ns 1 through 365, excluding 95, 108, 122, 177, 193, 278, 285, 293, 297, 310, and 362.

(2) S/Ns 366 through 710, excluding 387, 405, 423, 481, 506, 574, 584, 596, 632, and 669.

(3) S/Ns 711 through 1035, excluding 733, 824, 852, and 994.

(4) S/Ns 1036 through 1475, excluding 1038, 1054, 1081, 1086, 1098, and 1177.

(5) S/ns 1476 through 1615, excluding 1523.

(6) S/Ns 4516 through 4521.

(d) Unsafe Condition

This AD was prompted by a report of a propeller not moving into the feathering position after an engine in-flight shutdown. We are issuing this AD to prevent propellers

from failing to move into the feathering position after an engine in-flight shutdown. Propellers failing to feather can cause high drag on the propeller, asymmetric thrust, and difficulty of or impossibility in controlling the airplane.

(e) Compliance

Comply with this AD within the compliance times specified, unless already done.

(f) Auxiliary Feathering Pump Removal

Remove the affected auxiliary feathering pumps from service at the following:

(1) Not later than April 30, 2013, for the affected S/Ns listed in paragraph (c)(1) of this AD.

(2) Not later than October 31, 2013, for the affected S/Ns listed in paragraph (c)(2) of this AD.

(3) Not later than April 30, 2014, for the affected S/Ns listed in paragraph (c)(3) of this AD.

(4) Not later than October 31, 2014, for the affected S/Ns listed in paragraph (c)(4) of this AD.

(5) Not later than April 30, 2015, for the affected S/Ns listed in paragraph (c)(5) of this AD.

(6) Not later than April 30, 2014, for the affected S/Ns listed in paragraph (c)(6) of this AD.

(g) Installation Prohibition

After the effective date of this AD, do not install any auxiliary feathering pump listed as affected in paragraph (c) this AD, unless the auxiliary feathering pump has been properly modified. Properly modified auxiliary feathering pumps will have the letter “M” following the pump S/N, as described in Hamilton Sundstrand Corporation Alert Service Bulletin No. 14SF-61-A165, dated September 25, 2012.

(h) Alternative Methods of Compliance (AMOCs)

The Manager, Boston Aircraft Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(i) Related Information

(1) For more information about this AD, contact Michael Schwetz, Aerospace Engineer, Boston Aircraft Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7761; fax: 781-238-7170; email: michael.schwetz@faa.gov.

(2) For service information identified in this AD, contact Hamilton Sundstrand Propeller Technical Team, One Hamilton Road, Mail Stop 1-3-AB43, Windsor Locks, CT 06096-1010; fax: 860-654-5107. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on January 29, 2013.

Colleen M. D'Alessandro,
Assistant Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

[FR Doc. 2013-02719 Filed 02/06/2013 at 8:45 am; Publication Date: 02/07/2013]